

New Riverine Boat Is Ready For War Duty, Officials Say

By Christian Lowe, Times staff writer

As the Marine Corps readies to deploy its newest riverine craft to Iraq, questions remain about some of the boat's capabilities in extreme environments and its survivability if the hull is breached.

Officials with Marine Corps Systems Command at Quantico, Va., which manages the new Small Unit Riverine Craft program, say the new vessel is ready for war. They point out that while some operational requirements were not fully tested, computer simulation and previous experience with similar watercraft show that the SURC is primed for action.

In a July 2003 independent evaluation, Marine testers highlighted several deficiencies in the design and unproven capabilities with the SURC that they wanted SysCom developers to fix. The issues ranged from the position of the gun mounts along the gunwales to the craft's ability to accelerate and maintain specific speeds.

Though Marine testers recommended more than two dozen changes or additional tests before fielding the SURC, they nevertheless declared the boat operationally suitable and operationally effective - formally signing off on the craft for purchase by the Marine Corps.

The SURC program manager said Aug. 19 that most of the recommendations outlined in the report were fixed, but some questions regarding certain capabilities remain unproven.

For example, the report called on developers to test the SURC's ability to operate in water temperatures as high as 93 degrees or as low as 33 degrees and in air temperatures as high as 125 degrees or as low as minus 30 degrees.

Bill Barnebee, program manager for infantry combat systems, which includes the SURC, said testing had not been done to simulate those temperature extremes.

He did point out, however, that the Corps' experience with its Riverine Assault Craft in high temperatures - and tests done with the new craft on 105-degree days - provided enough data to ensure the SURC would do well in more than 120-degree heat.

Air temperatures in Iraq - where two platoons from the Camp Lejeune, N.C.-based Small Craft Company will deploy with their SURCs in September - can reach 130 degrees during the summer.

Barnebee also was unable to say whether a combat-loaded SURC could "remain afloat, level and upright when the hull is breached or swamped," as testers had required, but did

say the boat was designed to protect passengers and crew from small-arms fire where its rigid raider craft was not.

"We did the engineering requirements and design to make sure those areas were protected," Barnebee said.

Engineers filled the SURC with water to make sure it wouldn't sink and used computer simulations and other data to conclude the SURC could survive a hull breach, Barnebee said.

The fact that the hull-breach question hadn't been fully answered wasn't a show-stopper for the testers. "Despite several deficiencies discovered in the operational test, the SURC is operationally effective," the report said.

Other problems noted by Marine testers were fixed, and design changes were made, including:

- * Offsetting the forward gun mounts so that two gunners can fire to port and starboard without bumping into each other.

- * Adding "straddle benches" for the rifle squad. The test report suggested adding flip-down seats, but Barnebee said attaching those seats to the hull was impractical.

- * Modifying the driver's instrument panel to be night-vision-goggle compatible.

Despite testers' concerns, the SURC is a huge improvement over its replacement, the rigid raiding craft, officials say. Marines from Small Craft Company say the SURC is just what they need.

The boat's twin 440-horsepower diesel engines and 35-knot top speed blow the twin 70-horsepower rigid raiding craft out of the water. The SURC's firepower is equally impressive, sporting three gun mounts - one in the stern and two in the bow - that can hold MK19 40mm grenade launchers or M2 .50-caliber machine guns.

The craft can hold up to 13 combat-loaded Marines and two crew members and can operate in water as shallow as 2 feet.

"We've met the requirement with what we've got right now in terms of the SURC," Barnebee said. "Is there a better capability out there? From what we've seen, for the money, we don't think so."

According to the report, the Corps plans to buy 40 of the boats at a total cost of more than \$27 million, through 2005. The Marine Corps has purchased 17 SURCs, with six delivered so far.